



UNITED STATES PATENT AND TRADEMARK OFFICE

AL

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,778	04/27/2001	Atsushi Ito	1945-347	3837
6449	7590	04/08/2004	EXAMINER	
ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005			MACCHIAROLO, PETER J	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PC

Office Action Summary	Application No. 09/842,778	Applicant(s) ITO ET AL.	
	Examiner Peter J Macchiarolo	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The reply filed on 03/24/2004 consists of changes to the specification, drawings, and to the claims, and further, the reply consists of remarks related to the prior rejection of claims in the previous Office Action. The above have been entered and considered. However, pending claims 7-9 are not allowable as explained below.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Claims 7-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.**
3. Claim 7 recites a method of fabricating a display panel by coating resin material over the front panel, the resin material including red, green, and blue resins corresponding to red, green and blue color regions of the back panel, thereby forming a resin lens layer, then pressing a molding tool against a front surface of the resin lens layer. Applicant has failed to disclose how the resin material including red, green, and blue resins are coated on the front panel in order to correspond with the red, green, and blue colors regions of the back panel. Furthermore, Applicant has failed to disclose how to press and remove a molding tool against a front surface

Art Unit: 2879

of the resin lens layer, thus forming a plurality of lenses which correspond to the red, green, and blue colors regions of the back panel. The Examiner recognizes that this process will mix the colored resins and consequently, will not correspond with the colored regions of the back panel. Claims 8 and 9 are rejected since they depend from claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over previously cited Oshawa et al (USPN 5,939,826; "Oshawa") in view of previously cited Haraga et al (USPN 5,126,620; "Haraga"), in view of previously cited Jondrow (USPN 6072274; "Jondrow").

5. In regards to claims 7 and 9, Oshawa discloses in figure 2, providing a back panel (1) having a plurality of display cells (S) each formed by coating on recessed portions of the back panel fluorescent material (7) emitting red, green or blue light, the recessed portions being arranged in an array, disposing a front panel (3) on a front surface side of the back panel so as to cover the recessed portions, the front panel having a plurality of electrodes (21) each electrode corresponding to a respective display cell and causing the respective display cell to emit light

Art Unit: 2879

through electric discharge, a material (6) covering the front panel thereby forming a lens layer, each of which condense light from a display cell (S) to the front side of the display panel.¹

6. Oshawa is silent to the material being a resin material including red, green, and blue resins corresponding to red, green, and blue color regions of the back panel, and is also silent to how the lens layer is made.

7. However, Haraga discloses that a resin (plastic) material including red, blue, and green pigments can be molded with a three-color machine (injection molding), and the pigments corresponding to the luminous layers they cover, and this configuration enables the lenses to operate as filters, thereby increasing the contrast between the states of full-emission and non-emission in each of the pixels.²

8. One would be motivated to manufacture Haraga's colored lenses on Oshawa's PDP for a variety of reasons. Using Haraga's colored resin lenses will integrate Oshawa's color filters into the molded lenses, which will save manufacturing time and money. Furthermore, Haraga teaches that integrating the color filters with the lenses will allow for fixing the lenses to the front panel without any possible deviation in the positions of the filters or lenses.³

9. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct Oshawa's PDP using Haraga's lenses.

10. The Examiner notes that Jondrow teaches that injection molding and compression molding are equivalent methods known in the molding art.⁴ Further, one would be motivated to

¹ Oshawa, col. 3, ll. 54-63.

² Haraga, col. 10 line 50 to col. 11, line 31.

³ Haraga, col. 2, ll. 53-59.

⁴ Jondrow, col. 2, ll. 48-50.

Art Unit: 2879

use compression molding instead of injection molding for a variety of reasons, including reduced manufacturing time and high volume production with the ability to produce high quality surfaces. Therefore, because these two materials were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute compression molding for injection molding in Haraga's molding method.

11. In regards to claim 8, Oshawa further discloses in figure 1 that the luminous portion comprises a plurality of display cells disposed in a matrix from, and each of the display cells emit light.

Response to Arguments

12. Applicant's arguments with respect to claim 7 have been considered but are not persuasive.

13. Applicant alleges that Haraga fails to disclose coating resin material over the front panel, the resin material including red, green, and blue resins corresponding to red, green, and blue color regions of the back panel. Applicant further cites a passage from Haraga. The Examiner notes that it is unclear from said passage if Haraga includes resin material corresponding to the color regions of a back panel, and Applicant's interpretation of said passage is incorrect, since Haraga teaches the specific pigments used in the lenses covering the pixels at col. 10, ll. 50-61 specifically, cadmium sulfide corresponding to the red pixels, chromium oxide corresponding to the green pixels and cobalt oxide corresponding to the blue pixels. Cadmium sulfide is known to be red, chromium oxide is known to be green, and cobalt oxide is known to be blue, as further

Art Unit: 2879

evidenced by the enclosed printed WebPages from Conservation and Art Material Encyclopedia Online. Therefore, Haraga does indeed disclose the resin material including red, green, and blue resins corresponding to red, green, and blue color regions of the back panel.

14. Applicant's remaining arguments are moot in view of the new grounds of rejection.

Conclusion

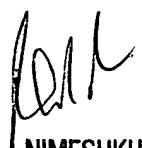
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375. The examiner can normally be reached on 8:30 - 5:00, M-F.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



pjm



NIMESHKUMAR D. PATEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800